OUTLINE OF DESIRED ANALYSIS CAPABILITIES TO BE INCORPORATED IN AN INTERACTIVE ANALYSIS SYSTEM

I. GENERAL

The entire effort can be segmented into two major phases. Continuing on to the second phase would be determined by the operational feasibility of the first phase. The tasks to be accomplished during each phase are outlined below:

A. Phase One

This phase will concentrate on the analysis of isolated signal events.

1. Digitization

This capability presently exists. Digitization of signal to be processed will be performed on the Transient Analyzer (T.A.) located at OC-SPD/CEN or on the ANDI facility at DD/S&T/OCS.

2. Display

Manipulation of the signal event on a CRT display. Various modes of display are desired.

a. Display entire signal event.

b. Magnification or the spreading out of a portion of the event across the display.

c. Right or left rotation of the signal event across the display.

3. Signal Editing

Light pen editing of a desired portion of the displayed signal event.

OUTLINE OF DESIRED ANALYSIS CAPABILITIES TO BE INCORPORATED IN AN INTERACTIVE ANALYSIS SYSTEM (CONTINUED)

4. Digital Filtering

   a. Frequency and amplitude spectrum analysis over the duration of the entire event.

   b. Frequency and amplitude spectrum retaining time, obtained by sliding a small spectrum window across the event.

B. Phase Two

This phase will be directed toward the clustering and classification of multiple signal events. Briefly, the desired features in this realm of analysis would be:

1. Event editing.

2. Multiple event epoching or syncing.

3. Labeling of events.

4. Cluster analysis (scatter diagram).

5. Pattern classification (SCOPE, linear classifier).